



Forest fire emissions over the North Atlantic in July 2004: p-TOMCAT model predictions with aircraft and satellite measurements

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In the summer of 2004 forest fires in Alaska and Canada emitted large quantities of CO and other tracers which were then advected over the North Atlantic. Researchers from the UK were using a BAe-146 research aircraft to measure O₃ and its precursors over the North Atlantic, based at the Azores, in July 2004 as part of the NERC ITOP project. The Cambridge global model of chemistry and transport p-TOMCAT was used to support the ITOP campaign, and now using new estimates of the biomass burning emissions for the summer of 2004 the model is able to show the locations of the plumes and the tracer concentrations. With the new emissions inventories the comparison between model predictions and the measurements from the BAe-146 and from the MOPITT and SCIAMACHY satellite instruments is better.